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| 10/825,345 | 04/15/2004 | Shannon V. Davidson | 064747.1011 | 8660 |

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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| | Application No. | Applicant(s) |
|---|---|---|
| **Office Action Summary** | 10/825,345 | DAVIDSON ET AL. |
| | Examiner | Art Unit |
| | SAKET K. DAFTUAR | 2451 |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1) ☒ Responsive to communication(s) filed on <u>21 June 2010</u>.
2a) ☐ This action is **FINAL**.  2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

4) ☒ Claim(s) <u>1-45</u> is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) <u>1-45</u> is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

## Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a) ☐ All  b) ☐ Some * c) ☐ None of:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____.
      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date <u>09/29/10</u>.
4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____ .

## DETAILED ACTION

1.     This office action is responsive to the pre-brief appeal conference decision mailed on August 17th, 2010. The prosecution has been re-opened by examiner and claims 1-45 are presented for the further examination.


### *Response to Arguments*

2.     Applicant's arguments, see pre-brief conference request remarks, filed June 21st, 2010, with respect to the rejection(s) of claim(s) 1-45 under 35 USC 103(a) unpatentable over Brownell et al. US Patent Number 7,231,430 B2 and Aziz et al. US Patent Number 6,597,956 B1 and further in view of Marsh et al. US Patent Number 7,055,148 B2 have been fully considered and are persuasive.  Therefore, the rejection has been withdrawn.


3.     Applicant's arguments with respect to claims 1-45 have been considered but are moot in view of the new ground(s) of rejection rejected under 35 U.S.C. 103(a) as being unpatentable over Brownell et al. US Patent Number 7,231,430 B2 (hereinafter Brownell) and Marsh et al. US Patent Number 7,055,148 B2 (hereinafter Marsh) and further in view of Lortz et al. US Patent Number 7,428,583 B1 (hereinafter Lortz).

## *Claim Rejections - 35 USC § 101*

4.      35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5.      Claims 16-30 are rejected under 35 U.S.C. 101 because the claimed invention is

directed to non-statutory subject matter.

Claim 16 recites "one or more computer readable media embodying

software that...operates to:

select a distributed application;
retrieve a policy associated...;
dynamically select one ...;
reset a boot image of the selected...;
associate a virtual disk image...; and
execute at least a portion of the distributed..."

Claim(s) 16-30 are directed towards transitory propagating signals, *per

se.* The United States Patent and Trademark Office (USPTO) is obliged to give

claims their broadest reasonable interpretation consistent with the specification

during proceedings before the USPTO. *See In re Zletz*, 893 F.2d 319 (Fed. Cir.

1989) (during patent examination the pending claims must be interpreted as

broadly as their terms reasonably allow). The broadest reasonable interpretation

of a claim drawn to a computer readable medium (also called machine readable

medium and other such variations) typically covers forms of non-transitory

tangible media and transitory propagating signals *per se* in view of the ordinary

and customary meaning of computer readable media, particularly when the

specification is silent. *See* MPEP 2111.01. When the broadest reasonable

interpretation of a claim covers a signal *per se*, the claim must be rejected under 35 U.S.C. § 101 as covering non-statutory subject matter. *See In re Nuijten*, 500 F.3d 1346, 1356-57 (Fed. Cir. 2007) (transitory embodiments are not directed to statutory subject matter) and *Interim Examination Instructions for Evaluating Subject Matter Eligibility Under 35 U.S.C. § 101*, Aug. 24, 2009; p. 2.

A claim drawn to such a computer readable medium that covers both transitory and non-transitory embodiments may be amended to narrow the claim to cover only statutory embodiments to avoid a rejection under 35 U.S.C. § 101 by adding the limitation "non-transitory" to the claim. *Cf Animals - Patentability*, 1077 Off. Gaz. Pat. Office 24 (April 21, 1987) (suggesting that applicants add the limitation "non-human" to a claim covering a multi-cellular organism to avoid a rejection under 35 U.S.C. § 101). Such an amendment would typically not raise the issue of new matter, even when the specification is silent because the broadest reasonable interpretation relies on the ordinary and customary meaning that includes signals *per se*. The limited situations in which such an amendment could raise issues of new matter occur, for example, when the specification does not support a non-transitory embodiment because a signal *per se* is the only viable embodiment such that the amended claim is impermissibly broadened beyond the supporting disclosure. *See, e.g., Gentry Gallery, Inc. v. Berkline Corp.*, 134F.3d 1473 (Fed. Cir. 1998).

## *Claim Rejections - 35 USC § 103*

6.      The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

7.      The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1.      Determining the scope and contents of the prior art.
2.      Ascertaining the differences between the prior art and the claims at issue.
3.      Resolving the level of ordinary skill in the pertinent art.
4.      Considering objective evidence present in the application indicating
       obviousness or nonobviousness.

8.      Claims 1-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Brownell et al. US Patent Number 7,231,430 B2 (hereinafter Brownell) and Marsh et al.

US Patent Number 7,055,148 B2 (hereinafter Marsh) and further in view of Lortz et al.

US Patent Number 7,428,583 B1 (hereinafter Lortz).

        As per claim 1, Brownell discloses selecting a distributed application (see

column 2, lines 47-62); dynamically selecting one of a plurality of nodes(see

column 2, line 47- column 3, line 8); associating a virtual disk image with the

selected node based (see column 2, line 47- column 3, line 26); and executing at

least a portion of the distributed application on the selected node using the virtual

disk image associated with the selected node (see column 2, line 47- column 3,

line 26) the execution performed by at least one processor of the selected node

(see figure1, column 2, line 45 – column 3, line 67, column 5, line 45 – column 6,

line 38).

However, Brownell is silent about resetting a boot image [read as

configuring or re-configuring the boot file or registry file] of the selected node

based at least in part on the retrieved policy and making the boot image being

compatible with the distributed application.

Marsh teaches resetting a boot image [read as configuring the boot file or

registry file or configuration file or boot image with software patch, see column

10, lines 12-30 for re-configuring or reset the system loader configuration files] of

the selected node, the boot image [boot image with firmware software patch]

being compatible with the distributed application (see column 2, line 57 – column

3, line 48, column 6, line 15 – column 8, line 13, column 8, line 39 – column 10,

line 30, see figures 2-4, 6).

Lortz teaches that policy [policy or policies in client computer are

compared, retrieved, and updated from policy server] associated with the boot

image (see figures 6-7B, column 3, line 50 - column 5, line 45 for configuring the

client system based on retrieved policy from server).

Thus, it would have been recognized by one of ordinary skill in the art that

applying the known technique of configuring the network system based on the

policy taught by Lortz to the network node or network devices of Brownell would

have yielded predicable results and resulted in an improved network system,

namely, a improved network cluster system that would positively and efficiently

updating the configuration of network system devices based on policy in network cluster system of Brownell to efficiently managing and distributing the network policies in all network cluster system devices and efficiently configures the network cluster system devices or computers by transmitting configuration data from the policy files or database or policy server.

As per claim 2, Marsh teaches selecting one of a plurality of compatible boot images [boot image with software patch] based on the comparison(see column 2, line 57 – column 3, line 48 for modifying boot image, column 6, line 15 – column 8, line 13 boot image with particular software firmware patch defined by the firmware version and operating system, column 8, line 39 – column 10, line 30, see figures 2-4, 6).

Lortz teaches that policy [retrieved from server] associated with the boot image and comparing with the retrieved policy (see figures 6-7B, column 3, line 50 - column 5, line 45 for configuring the client computer system based on retrieved policy from server, the policy or policies in client computer are compared, retrieved, and updated from policy server).

Thus, it would have been recognized by one of ordinary skill in the art that applying the known technique of configuring the network system based on the policy taught by Lortz to the network node or network devices of Brownell would have yielded predicable results and resulted in an improved network system, namely, a improved network cluster system that would positively and efficiently

updating the configuration of network system devices based on policy in network cluster system of Brownell to efficiently managing and distributing the network policies in all network cluster system devices and efficiently configures the network cluster system devices or computers by transmitting configuration data from the policy files or database or policy server.

As per claim 3, Brownell discloses determining a count of nodes in the subset (see column 2, line 47- column 3, line 26, column 8, lines 34-51, column 14, lines 39-49); and Marsh teaches selecting the boot image based on a link in the policy (see column 2, line 57 – column 3, line 48, column 6, line 15 – column 8, line 13, column 8, line 39 – column 10, line 30, see figures 2-4, 6).

Lortz teaches that policy [retrieved from server] associated with the boot image and comparing with the retrieved policy (see figures 6-7B, column 3, line 50 - column 5, line 45 for configuring the client system based on retrieved policy from server).

Thus, it would have been recognized by one of ordinary skill in the art that applying the known technique of configuring the network system based on the policy taught by Lortz to the network node or network devices of Brownell would have yielded predicable results and resulted in an improved network system, namely, a improved network cluster system that would positively and efficiently updating the configuration of network system devices based on policy in network cluster system of Brownell to efficiently managing and distributing the network policies in all network cluster system devices and efficiently configures the

network cluster system devices or computers by transmitting configuration data

from the policy files or database or policy server.

As per claim 4, Marsh teaches node associated with one of the plurality of

compatible boot images (see column 2, line 57 – column 3, line 48, column 6,

line 15 – column 8, line 13, column 8, line 39 – column 10, line 30, see figures 2-

4, 6).

Lortz teaches that policy [retrieved from server] associated with the boot

image and comparing policy with the retrieved server policy (see figures 6-7B,

column 3, line 50 - column 5, line 45 for configuring the client system based on

retrieved policy from server).

Thus, it would have been recognized by one of ordinary skill in the art that

applying the known technique of configuring the network system based on the

policy taught by Lortz to the network node or network devices of Brownell would

have yielded predicable results and resulted in an improved network system,

namely, a improved network cluster system that would positively and efficiently

updating the configuration of network system devices based on policy  in network

cluster system of Brownell to efficiently managing and distributing the network

policies in all network cluster system devices and efficiently configures the

network cluster system devices or computers by transmitting configuration data

from the policy files or database or policy server.

As per claim 5, Brownell discloses determining if one or more of the

plurality of nodes is unutilized by a second distributed application (see column 7,

line 29 – column 8, line 51; internal nodes utilization is unavailable to external

node); and in response to at least one of the nodes being unutilized, selecting

one of the unutilized nodes (see column 7, line 29 – column 8, line 51).

As per claim 6, Brownell compatibility of the selected node with the

selected distributed application (see column 7, line 29 – column 8, line 51).

Lortz teaches that policy [retrieved from server] associated with the boot

image and comparing with the retrieved policy (see figures 6-7B, column 3, line

50 - column 5, line 45 for configuring the client system based on retrieved policy

from server, the policy or policies in client computer are compared, retrieved, and

updated from policy server).

Thus, it would have been recognized by one of ordinary skill in the art that

applying the known technique of configuring the network system based on the

policy taught by Lortz to the network node or network devices of Brownell would

have yielded predicable results and resulted in an improved network system,

namely, a improved network cluster system that would positively and efficiently

updating the configuration of network system devices based on policy  in network

cluster system of Brownell to efficiently managing and distributing the network

policies in all network cluster system devices and efficiently configures the

network cluster system devices or computers by transmitting configuration data

from the policy files or database or policy server.

As per claim 7, Marsh teaches automatically shutting down the selected

node (see column 2, line 57 – column 3, line 48, column 6, line 15 – column 8,

line 13, column 8, line 39 – column 10, line 30, see figures 2-4, 6); resetting the

boot image of the selected node (see column 2, line 57 – column 3, line 48,

column 6, line 15 – column 8, line 13, column 8, line 39 – column 10, line 30, see

figures 2-4, 6);and restarting the selected node using the reset boot image (see

column 2, line 57 – column 3, line 48, column 6, line 15 – column 8, line 13,

column 8, line 39 – column 10, line 30, see figures 2-4, 6).

Lortz teaches that policy [retrieved from server] associated with the boot

image and comparing with the retrieved policy (see figures 6-7B, column 3, line

50 - column 5, line 45 for configuring the client system based on retrieved policy

from server, the policy or policies in client computer are compared, retrieved, and

updated from policy server).

Thus, it would have been recognized by one of ordinary skill in the art that

applying the known technique of configuring the network system based on the

policy taught by Lortz to the network node or network devices of Brownell would

have yielded predicable results and resulted in an improved network system,

namely, a improved network cluster system that would positively and efficiently

updating the configuration of network system devices based on policy  in network

cluster system of Brownell to efficiently managing and distributing the network

policies in all network cluster system devices and automatically configures and

restart the network cluster system devices or computers by transmitting

configuration data from the policy files or database or policy server.

As per claim 8, Brownell discloses terminating any processes associated with the second distributed application prior to shutting down the node (see column 2, line 47- column 3, line 26, column 6, lines 18-35, column 9, line 54 – column 10,line 28, failure is being detected, before hand, based on the heartbeat messaging mechanism).

As per claim 9, Marsh teaches a plurality of links to boot images [firmware version of boot image], each link associated compatible with the distributed application (see column 2, line 57 – column 3, line 48, column 6, line 15 – column 8, line 13, column 8, line 39 – column 10, line 30, see figures 2-4, 6).

Lortz teaches that policy [retrieved from server] associated with the boot image and comparing with the retrieved server policy with client's policy to determine compatibility  (see figures 6-7B, column 3, line 50 - column 5, line 45 for configuring the client system based on retrieved policy from server).

Thus, it would have been recognized by one of ordinary skill in the art that applying the known technique of configuring the network system based on the policy taught by Lortz to the network node or network devices of Brownell would have yielded predicable results and resulted in an improved network system, namely, a improved network cluster system that would positively and efficiently updating the configuration of network system devices based on policy  in network cluster system of Brownell to efficiently managing and distributing the network policies in all network cluster system devices and automatically configures and

compatibles the network cluster system devices or computers by transmitting
configuration data from the policy files or database or policy server for error free
communication.

As per claim 10, Brownell discloses one or more parameters for
determining the timing of the selection of the node (column 27, lines 30-32).

As per claim 11, Brownell discloses a remote boot image stored in a
Storage Area Network (SAN) (column 2, line 45 – column 3, line 26).


As per claim 12, Marsh teaches the node associated with a first boot
image prior to the reset and associated with a second boot image from the reset,
the first and second boot image differing in at least one of the following
characteristics: operating system; system configuration and distributed
application parameters (see column 2, line 57 – column 3, line 48, column 6, line
15 – column 8, line 13, column 8, line 39 – column 10, line 30, see figures 2-4,
6).

Lortz teaches that policy [retrieved from server] associated with the boot
image and comparing with the retrieved policy (see figures 6-7B, column 3, line
50 - column 5, line 45 for configuring the client system based on retrieved policy
from server).

Thus, it would have been recognized by one of ordinary skill in the art that
applying the known technique of configuring the network system based on the
policy taught by Lortz to the network node or network devices of Brownell would

have yielded predicable results and resulted in an improved network system, namely, a improved network cluster system that would positively and efficiently updating the configuration of network system devices based on policy in network cluster system of Brownell to efficiently managing and distributing the network policies in all network cluster system devices and efficiently configures the network cluster system devices or computers by transmitting configuration data from the policy files or database or policy server.


As per claim 13, Brownell discloses determining that one of the plurality of nodes failed [failure is being detected, before hand, based on the heartbeat messaging mechanism], the failed node executing at least a portion of the selected distributed application (see column 2, line 47- column 3, line 26, column 6, lines 18-35, column 9, line 54 – column 10,line 28); and wherein selecting one of the plurality of nodes comprises selecting one of the remaining nodes in response to the failure (see column 2, line 47- column 3, line 26, column 6, lines 18-35, column 9, line 54 – column 10,line 28).

As per claim 14, Brownell discloses the same processor architecture (column 5, lines 29-34).

As per claim 15, Brownell discloses selecting one of the plurality of nodes at a predetermined time column 27, lines 30-32).

As per claims 16-30 and 31-45, claims 16-30 and 31-45 are computer readable media claims and system claims of method claims 1-15. They do not

teach or further definer over the limitation as recited in claims 1-15. Therefore,

claims 16-45 are rejected under same scope as discussed in claims 1-15, supra.


## Conclusion

9.      The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure. See accompanying PTO 892 form.

      a.      Network Policy Distribution by Lortz et al. US Patent Number7, 428,583.

      b.      Network Distributed system for Updating Locally Secured Objects in Client

Machines by Bahr US Patent Number 6,029,246.

      c.      Merging Scalable Nodes into Single-Partition Merged System Using

Service Processors of Nodes by Zaharias US Patent Number 7,379,983 B2.

      d.      Mechanism for Controlling Boot Decisions from a Network Policy Directory

Based on Client Profile Information by Backman et al. US Patent Number

7,127,597 B2.


*10.*      A shortened statutory period for reply to this non-final action is set to expire

**THREE MONTHS** from the mailing date of this action. Failure to respond within the

period for response will result in **ABANDONMENT** of the applicant (See 35 U.S.C 133,

M.P.E.P 710.02,71002 (b)).

## *Contact Information*

11.     Any inquiry concerning this communication or earlier communications from the examiner should be directed to Saket K. Daftuar whose telephone number is 571-272-8363.  The examiner can normally be reached on 8:30am-5:00pm M-W.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on 571-272-3964.  The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system.  Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/S. K. D./

Examiner, Art Unit 2451

/John  Follansbee/

Supervisory Patent Examiner, Art Unit 2451